Trace of using Competition Attitudes to Develop Coordination, Agility, and Accuracy for the Young Players in Handball

Qassim Hassan Kadim

Physical Education College, Babylon University, Iraq

Dr.qasim1978@yahoo.com

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ABSTRACT

Motor capacities are one of the main important components in training the handball activity and participant in a significant ratio to the performance requirements for the skills of the game because they have an excellence role with most of skills and have a significant important in the training lessons, they are basic that the coach depends on them to place the objectives of his training lessons in which connected with other physical characteristics to be the spine of the game and most of player movements reliant on them. In general can't dispense with motor capacities in player training, especially younger's. One of the important skills in handball is leaning shot skill; its performance is distinguished by high level of physical and motor features, the importance of this skill is prominent in the final match and the study aimed to prepare exercises to the competition attitudes to develop agility, coordination, and leaning shot in handball, in addition, identified effect of competition attitudes exercises to develop agility, coordination, and leaning shot in handball. The researcher used experimental approach (equal groups) and the sample of the study consists of (20) young players from players of specialist center in the Qassim young forum, study sample divided into two equal groups experiment and control. After completing pre-tests and make sure equal of study groups in independent variations, experimental group underwent to the training program included (18) training unit, three times a week then post-tests and statistical analysis by using SPSS system are performed, the researcher concluded that competition attitudes have a positive effect to develop some of agility and coordination for the handball players as well as competition attitudes have an impact in developing of the leaning shot.

Keywords: **Motor capacities, performance requirements, develop agility, young players**

1. Introduction

Handball is developed at recent time for all sides in consequences of development of sciences regarding handball and using of scientific instruments in training continually, in the other hand.

The modifications that carried out to the handball rule push the players to improve their physical and skill level to get at higher level and maintain the level, motor capacities are one of basic components which handball depends on, it forms a spine of the game and its development as well as it is a basic requirement for every players as a result of relation these capacities to the planning and technical sides because it is a game which being an open environment and changeable and the player needs to movements of the change of trend and change speed of body position, in addition, performance of many of movements in one time and relation the capacities with results of high jump shot for it is a basic and important skill which participates in team wining and it needs to motor and physical requirements due to performance difficulties.

As a result of the clear lake in accuracy of leaning shot skill for young players and lake of ratio of skill successful and few studies investigated about important of motor capacities and leaning shot and numerous studies found that competition attitudes relate to physical capacities, my study used competition attitudes to develop motor capacities which relate to leaning shot performance. The study aimed to prepare exercises to the competition attitudes to develop agility, coordination, and leaning shot in handball, in addition, identified effect of competition attitudes exercises to develop agility, coordination, and leaning shot in handball.

2. Methodology

Researcher used experimental approach (equal groups) because it is suitable to the nature of the study where experimental approach is more reality to solve a lot of scientific problems practically and theoretically (Mohamad & Ausama, 2000). The researcher carried out his tests on 20 February 2013 to the players of young specialist club to get the results of motor capacities and leaning shot accuracy, the time was at three o'clock evening and the accuracy test was at the beginning of the tests and then motor capacities tests, whereas the post-tests were achieved on 5 April 2013 at the same procedures of pre-tests

2.1 Subject

30 young players from specialist center of the Qassim young forum represented the search community, 20 players were selected randomly from them, and they divided into two groups (10) players to the experimental group and (10) players to the control group. To be study groups homogeneous and to adjust of study variations which impact in experiment, the researcher tried to find the homogeneity between variations such (agility, coordination between eye and arm, and between eye and leg and high jump shot accuracy) by skewness coefficient, most of variations achieved skewness value less than + - 1 and this means that subjects distributes homogeneously as shown in table (1). The researcher did also an equal between two groups in variations itself by used T-test for independent subjects as shown in table (2).

Table (1) shows the subject homogeneity in study variations

Variations	Skewness coefficient
Agility	0.85
Coordination between eye and leg	0.41
Coordination between eye and arm	0.10
Leaning shot	0.6

Table (2) shows subject equal in study variations

N	Variation	Measure Unit	Group				Calculate T	Sign. Level	Sign
			Experimental		Control				
			Mean	Standard Deviation	Mean	Standard Deviation			
1	Agility	Second	11.67	0.43	11.89	0.7	1.7	0.07	N S
2	Coordination between eye and arm	Degree	14.10	2.13	15.72	1.55	2.80	0.09	N S
3	Coordination between eye and leg	Second	9.75	1	9.57	1.26	0.55	0.58	N S
4	Leaning shot	Degree	1	0.81	0.81	0.07	-0.78	0.18	N S

Subject size (20), significant level (0.05).

2.2 Determine tests of the study

The researcher nominated number of tests which are selected from scientific resources and then displayed them to the experts who are their field handball and sport training, the researcher depended on content truth to agree to tests which nominated by experts as shown in table (3).

Table (3) shows ratio of experts' agreement.

N	Tests	Agrees	No Agrees	Ratio of agreement
1	Agility test	4	0	%100
2	Throw tens ball toward the wall (coordination eye and arm test)	4	0	%100
3	Jump between numbering circles (coordination eye and leg test)	4	0	%100
4	Shot test to the squares (shot accuracy)	4	0	%100

2.3 Tests Description

1. First Test: Leaning shot from up of head to the squares of shot accuracy (Sammir. 1999).
The purpose of the test: Measure of shot skill.

Tools:
1- Handball court.
2- Squares of shot accuracy (50 x 50) handle in the high corners of the goal.
3- Hand balls to the young number (6).

Performance specifications
The player performs two steps or three and shot to the squares of leaning shot accuracy and has to serve three balls to every square.
Evaluation:
The recorder records the number of successful attempts in which balls interfere in squares of shot accuracy.

2. Second Test: Ball throwing and receiving to the wall (Dya & Nawfal., 2001).
The purpose of the test: Measuring of coordination between eye and arm and ball.

Tools:
1- Tennis balls.
2- Wall and paint line is far 5m from the wall.

Performance specifications:

The player stands up in front of wall and back of line that is painted on the ground and then the test will begin as following. Throwing of the tennis ball 5 times respectively by right hand but the tester has to receive the ball after rebound by the same hand. - Throwing of the tennis ball 5 times respectively by left hand but the tester has to receive the ball after rebound by the same hand. Throwing of the tennis ball 5 times respectively by left hand but the tester has to receive the ball after rebound by the right hand.

Conditions:

Has to throw the ball to the wall and receive it directly before touching the ground. Don't allow to do extra attempts. Has to follow the determined conditions such throwing and receiving hand.

Account of Degree: Correct attempt is accounted one degree to the tester and total degree is (20) degree.
3. Third test: Numbered Circle Test (Mohamad, 1987).
The purpose: Measure of coordination between (legs and eyes).
Tools: Painted on the floor (8) circles numbered from (1 to 8), each diameter (60 cm)and, aswe observeinFigure(1), timer watch.

Performance: The player is stand up inside the circle number (1), when he heard the beginning sign, the player starts to jump from circle to circle until number (8).
Grade Account: Recorded the time which the player is spending to jump up the (8) circles correctly.

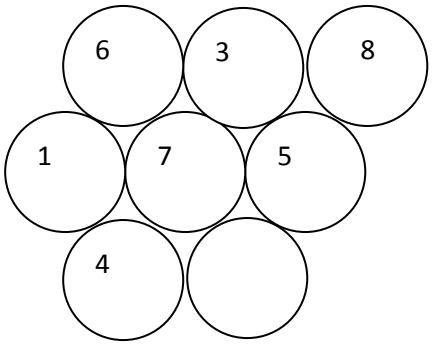

Figure (1)

4. Fourth test: Baro test for the agility (Kamal, 2002).

The purpose of the test: Measure of whole body agility.

Tools:

1- Rectangle field for the running paints on the solid and rough ground, its length is 4.75 and its width is 3m.
2- Stopping watch.
3- Chair is length 30 cm.

Performance Method:

Tester takes get ready position of the high begins in the back of the start line. Tester starts to run zigzag between five chairs a three times respectively when he hears starting sign. The running is (8) form. Has to give to the tester one try. Has to explain the test to the tester before starting the test.

The Recorder:

Record the time that tester is spent to complete the rectangle a three times during 1"10 second and start from moment of given the starting sign until completing the final line.

2.4 Special exercises to the experimental group:

Experimental group used competition attitudes whereas control group used a coach approach, the exercises used to achieve a developing in motor capacities of the leaning shot skill and these exercises are prepared by the researcher because he has a good background in training field, the exercises were interfered in the main section of the training unit, on the other side control group was under supervision of coach of the team and with his special approach. The duration of training for experimental group was (6) weeks, three times a week, the number of total training units was (18) training units and the time of the training unit was (90) minutes and the amount of time entire of main section was 30 to 48 minutes. Method of training which was followed up is high intensity interval method (90 – 95%). - The number of repetitions approximately 10 – 14 repeats as the nature of exercise. Recovery time was around (30 to 90) seconds between repetitions whereas between groups was (3 to 5) minutes. Days of training for the experimental group were (Friday, Sunday, and Tuesday).

2.5 Statistical Analysis

Researcher used SPSS to extract the results.

- Skewness coefficient
- Mean
- Standard deviation
- T-test for independent subjects
- T-test for depended subjects

3. Results & Discussion

Table (3) shows the differential significance between results of agility, coordination, and shot accuracy in pre-tests and post-tests of the experimental group and in favor of post-tests at all study variations.

Table (3) shows the differential significance between results of agility, coordination, and shot accuracy in pre-tests and post-tests of the experimental group.

N	Variation	Measure Unit	Experimental Group				Calculate T	Sign Level	Sign
			Pre-test		Post-test				
			Mean	Standard Deviation	Mean	Standard Deviation			
1	Baro Agility	Second	11.67	0.43	11.17	0.52	2.87	0.00	S
2	Tennis ball throwing	Degree	14.10	2.13	20	0	2.78	0.00	S
3	Numbering circles	Second	9.75	1	8.20	0.78	3	0.00	S
4	Leaning shot	Degree	1	0.81	3.07	0.94	3.78	0.00	S

Size of Subject (10) and significant level (0.05), Calculate (2.26).

Table (4) shows the differential significance between results of agility, coordination, and shot accuracy in pre-tests and post-tests of the control group and in favor of post-tests at all study variations.

Table (4) shows the differential significance between results of agility, coordination, and shot accuracy in pre-tests and post-tests of the control group

N	Variation	Measure Unit	Control Group				Calculate T	Sign Level	Sign
			Pre-test		Post-test				
			Mean	Standard Deviation	Mean	Standard Deviation			
1	Baro Agility	Second	11.98	0.7	11.79	0.81	45	0.00	S
2	Ball tennis throwing	Degree	15.72	1.55	16	0.9	34	0.00	S
3	Numbering circles	Second	9.75	1.26	8.51	3.9	6.67	0.00	N S
4	Leaning shot	Degree	0.81	0.87	1.50	0.97	3.25	0.004	S

Size of Subject (10) and significant level (0.05), Calculate (2.26).

Table (5) shows the differential significance between results of agility, coordination, and shot accuracy in post-tests of the experimental and control group and in favor of experimental group at all study variations.

Table (5) shows the differential significance between results of agility, coordination, and shot accuracy in post-tests of the experimental and control group

N	Variation	Measure Unit	Groups				Calculate T	Sign Level	Sign
			Experimental		Control				
			Mean	Standard Deviation	Mean	Standard Deviation			
1	Baro Agility	Second	11.17	0.52	11.79	0.81	2.33	0.03	S
2	Tennis ball throwing	Degree	20	صفر	16	0.9	13.4	0.01	S
3	Numbering circles	Second	8.20	0.78	8.51	3.9	5.4	0.03	N S
4	Leaning shot	Degree	3.07	0.94	1.50	0.97	3.7	0.004	S

Size of Subject (20) and significant level (0.05), Calculate (2.10)

All tables show differential significances between pre and post-tests in favor of post tests and to both of groups in agility, coordination, and leaning shot, there was a significant different between post-tests in favor of experimental group at the same of tests, the reason of that effective of the competition attitudes exercises which involved a surrounding factors of the performance under circumstances characterized of difficulties and gradually increasing of the performance timing as well as skill performance under experimental competitions, so it helped the player to shot from different corners, places and distances in order to cheat the defenses and let the task more difficult.

The researcher views that the benefit is lake because shot skill needs to more effort in training to improve it where effective attack in handball shows in a shot accuracy to the goal, this needs to attitudes similar to the match so we need into motor capacities to connect them with this skill such as agility and coordination specially with defense who increases the difficulty of performance to be similar into real competitions. Mohamad (1987) and Ahmad (1996) confirm that studies in characteristics and motor capacities demonstrated the interfering between lots of capacities and affect some of them to others such fast, parallel, strength, flexibility, and agility.

4. Conclusions

The researcher concluded that competition attitudes have a positive effect to develop some of agility and coordination for the handball players as well as competition attitudes have an impact in developing of the leaning shot.

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